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## ***Red Hat Enterprise Linux Release 9.2 Manual Pages on 'X509\_REQ\_sign\_ctx.3ossl' command***

***\$ man X509\_REQ\_sign\_ctx.3ossl***

X509\_SIGN(3ossl)                    OpenSSL                    X509\_SIGN(3ossl)

### NAME

X509\_sign, X509\_sign\_ctx, X509\_REQ\_sign, X509\_REQ\_sign\_ctx,  
X509\_CRL\_sign, X509\_CRL\_sign\_ctx - sign certificate, certificate  
request, or CRL signature

### SYNOPSIS

```
#include <openssl/x509.h>
```

```
int X509_sign(X509 *x, EVP_PKEY *pkey, const EVP_MD *md);
```

```
int X509_sign_ctx(X509 *x, EVP_MD_CTX *ctx);
```

```
int X509_REQ_sign(X509_REQ *x, EVP_PKEY *pkey, const EVP_MD *md);
```

```
int X509_REQ_sign_ctx(X509_REQ *x, EVP_MD_CTX *ctx);
```

```
int X509_CRL_sign(X509_CRL *x, EVP_PKEY *pkey, const EVP_MD *md);
```

```
int X509_CRL_sign_ctx(X509_CRL *x, EVP_MD_CTX *ctx);
```

### DESCRIPTION

X509\_sign() signs certificate x using private key pkey and message digest md and sets the signature in x. X509\_sign\_ctx() also signs certificate x but uses the parameters contained in digest context ctx.

X509\_REQ\_sign(), X509\_REQ\_sign\_ctx(), X509\_CRL\_sign(), and X509\_CRL\_sign\_ctx() sign certificate requests and CRLs, respectively.

## NOTES

X509\_sign\_ctx() is used where the default parameters for the corresponding public key and digest are not suitable. It can be used to sign keys using RSA-PSS for example.

For efficiency reasons and to work around ASN.1 encoding issues the encoding of the signed portion of a certificate, certificate request and CRL is cached internally. If the signed portion of the structure is modified the encoding is not always updated meaning a stale version is sometimes used. This is not normally a problem because modifying the signed portion will invalidate the signature and signing will always update the encoding.

## RETURN VALUES

All functions return the size of the signature in bytes for success and zero for failure.

## SEE ALSO

ERR\_get\_error(3), X509\_NAME\_add\_entry\_by\_txt(3), X509\_new(3), X509\_verify\_cert(3), X509\_verify(3), X509\_REQ\_verify\_ex(3), X509\_REQ\_verify(3), X509\_CRL\_verify(3)

## HISTORY

The X509\_sign(), X509\_REQ\_sign() and X509\_CRL\_sign() functions are available in all versions of OpenSSL.

The X509\_sign\_ctx(), X509\_REQ\_sign\_ctx() and X509\_CRL\_sign\_ctx() functions were added in OpenSSL 1.0.1.

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